

## CLAIMS

I claim:

1. A composition comprising a colloid particle comprising at least one electron transfer moiety (ETM).
2. A composition according to claim 1 wherein said particle further comprising a self-assembled monolayer (SAM).
3. A composition according to claim 1 wherein said colloid further comprises at least one covalently attached nucleic acid.
4. A composition comprising a colloid particle comprising a covalently attached conductive oligomer.
5. A composition according to claim 4 wherein said colloid particle further comprises at one ETM.
6. A composition comprising a colloid particle comprising:
  - a) a SAM;
  - b) a capture probe;
  - c) an amplification sequence; and
  - d) a label probe hybridized to said amplification sequence, wherein said label probe comprises at least one covalently attached ETM.

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